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in the Field

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the Field

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ON THE COVER

Known as skilled mariners, the Vikings built different types of ships for travel, trade, and warfare. See a replica Viking ship (based on archaeological sources) in the new exhibition, Vikings, opening February 27.

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dear member

In 2015, The Field Museum shares public exhibitions and scientific research that challenge perceptions.

Vodou: Sacred Powers of Haiti defies stereotypes to reveal a striking spiritual and social force. Similarly, the word "Vikings" may conjure images of lawless invaders with horned helmets, yet there is much to discover in a new exhibition about these culturally and domestically advanced Norsemen (and women!) opening February 27. And though museum exhibitions have traditionally highlighted China's art and design, you will see Chinese culture and history through a new lens when our *Cyrus Tang Hall of China* opens June 24.

In their research, Field Museum scientists are illuminating mysteries and changing conceptions about our planet and its inhabitants. Consider the puzzling attributes of the short-eared Amazonian "dog" or the curious fossilized meteorite that led to exploration of Swedish quarries rich in equally aberrant examples of the same.

Your support gives vital agency to these inquiries, among others. We are grateful, and we wish you a wonderful new year full of shared exploration and discovery!

RICHARD W. LARIVIERE, PHD

PRESIDENT AND CEO

GN1975-182D / JOHN WEINSTEIN



Opening at The Field Museum

A preview of upcoming exhibitions

Compiled by Franck Mercurio, Editor

VIKINGS

Opening February 27

Recent archaeological discoveries of Viking culture—which flourished more than a thousand years ago—have cast out common stereotypes of the infamous mariners and warriors. The *Vikings* exhibition reveals a dramatic and surprising story through rare Scandinavian artifacts and hands-on interactives. Encounter exquisite jewelry and metalwork, including striking silver pendants representing Norse gods and the earliest Scandinavian crucifix. Gain insight into domestic life, travel and trade, mythology and religion, and of course, Viking ships! (See pages 4 and 5.)



© SWEDISH HISTORY MUSEUM

MAMMOTHS AND MASTODONS: TITANS OF THE ICE AGE

Opening May 30

Back by popular demand, *Mammoths and Mastodons* returns to The Field Museum after a five-year international tour. Explore the vanished world of these Ice Age titans through fossils, artifacts, engaging interactives, and immersive media. Discover the habitats of mammoths and mastodons and meet their animal neighbors (including

humans!). Investigate current theories about mammoth DNA and extinction, and journey with scientists who continue to study mammoths' living cousins: elephants.



GN91394_01D / VELIZAR SIMEONOVSKI

CYRUS TANG HALL OF CHINA

Opening June 24

Explore a culture of deep tradition and dynamic change in the new *Cyrus Tang Hall of China*, the only major, permanent exhibition in the U.S. to examine Chinese culture and history from an anthropological perspective. Travel across thousands of years of history—through textiles, bronzes, ceramics, and sculpture—and discover one of the world's most influential civilizations. Warfare and political upheaval repeatedly shifted power within China, yet certain traditions and ideals endured and united even the largest dynasties and empires. Learn how diverse spiritual and philosophical practices have flourished side by side, and how these belief systems have influenced and blended with each other throughout Chinese history.

GREEKS: AGAMEMNON TO ALEXANDER THE GREAT

Opening November 25

Take an extraordinary journey through more than 5,000 years of Greek history. This is the most comprehensive exhibition about ancient Greece to tour North America in a generation, displaying more than 500 exquisite artifacts from 21 major Greek museums—many of which have never been exhibited outside Greece. The exhibition tells the story of Greek culture—from the Neolithic age to the Hellenic—through

the lens of historic figures, and explores the widespread influence of the Greeks across time and continents. **ITF**



ARCHAEOLOGICAL MUSEUM OF AIGAI, VERGINA

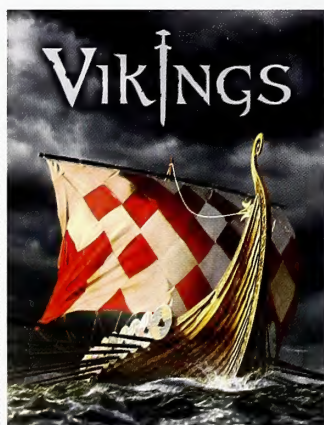


AT15135D_004A / JOHN WEINSTEIN



VIKINGS INVADE THE

**WHEN YOU HEAR THE WORD “VIKINGS,”
WHAT COMES TO MIND? RUTHLESS WARRIORS AND MERCILESS INVADERS?
OR PROSPEROUS FARMERS AND ENTERPRISING MERCHANTS? A NEW EXHIBITION,
VIKINGS, EXPLORES FACT AND FICTION BEHIND SCANDINAVIA’S
ANCIENT—AND INFAMOUS—SEAFARING RAIDERS.**



© AUSTRALIAN NATIONAL MARITIME MUSEUM

The Field Museum’s presentation of *Vikings* is the only U.S. stop on an international tour. The exhibition transports visitors to the Viking Age (AD 700–1000) brought to light through archaeological discoveries. Nearly 500 artifacts—many never before seen outside of Scandinavia—reveal new insights into the legendary people traditionally characterized as heartless marauders.

Objects on display provide glimpses into family and community, religion and rituals, travel and trade, aristocracy and slavery, and the roles of women. The exhibition also presents the significance of craft in Viking life, the power of Norse mythology, and the importance and symbolism of Viking ships. A highlight of the exhibition is the *Krampmacken*, a replica Viking ship from Sweden based on historical and archaeological sources.

Vikings also challenges common misconceptions about the early Scandinavians. Visitors may be surprised to see a Viking helmet *without* horns. In fact, no Viking helmet has ever been discovered *with* horns; the image of the horned-helmet emerged in the 19th century, popularized by authors and artists who romanticized Norse culture. Another myth surrounds the name “Vikings.” The word derives from Old Norse and is thought to mean “going on a voyage or an adventure.” But during the Viking era, people were not always out on expeditions; most lived as farmers, merchants, and craftsmen. They did not call themselves “Vikings,” but named themselves after the farm, village, or region in which they lived.

IMAGES © SWEDISH HISTORY MUSEUM

Exclusive Vikings Events for Museum Members

For more information, contact Member Services at 312.665.7705
or visit fieldmuseum.org/membership.

Tuesday, February 24

Founders' Council Preview

Exclusively for Founders' Council donors

Thursday, March 5

Annual Fund Private Viewing

Exclusively for Annual Fund donors

Saturday, March 14

Members-only Viewing

Exclusively for Museum members of all giving levels.

The day begins with a lecture at 8am. Exhibition doors
open at 9am and close at 5pm.

FIELD!

By Emily J. Waldren, Public Relations Manager



Striking examples of Viking craftsmanship are displayed, including exquisitely designed brooches, depictions of Norse gods, as well as gold and silver pendants—including the oldest known Scandinavian crucifix (pictured above), reflecting the transition between Old Norse religious practices and Christianity. Viking Age swords and other weapons are also exhibited, highlighting exceptional metal-working technologies.

Vikings features a number of interactives, allowing museum visitors to take part in the excavation of a virtual boat grave, spell a name in runes, explore Norse mythology, and play an early Scandinavian board game. Visitors can pick up an accurate replica of a Viking Age sword and test the weight and balance between grip and blade, discovering the skill it takes to master sword handling.

Vikings brings a new appreciation of the people remembered mainly for their plundering ways. And while raiding and pillaging were mainstays of their culture, Viking society was much more complex and multifaceted. Come see a complete picture when *Vikings* opens at The Field Museum on February 27. **ITF**

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DISCOVER


**VIKING
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This exhibition is a joint venture between and produced by the Swedish History Museum in Sweden and MuseumsPartner in Austria.



FACT VERSUS FICTION

From Erik the Red to Hagar the Horrible, we certainly have heard a lot about the Vikings, but what's fact and what's fiction? Learn some surprising truths and discover how Viking culture has influenced our own.

You may know that Thursday translates to "Thor's day" and is named for the Norse god of thunder and lightning. But did you know several other weekday names come from Norse mythology? Wednesday translates to "Woden's day" and is named for Odin, the chief god and Thor's father. Friday is named for either Freya, the Norse goddess of love, marriage, and fertility, or Frigg, the patron of marriage and motherhood, wife of Odin.

Recent archaeological discoveries indicate women had more equal status during the Viking Age than they would during the Christian era in Scandinavia; on the farm, free women ran the households. Inside the exhibition, you'll see examples of keys (pictured above)—symbols of the housewife—which were worn proudly.

The idea of a Viking burial at sea—when a corpse and ship would be set on fire—is popular in Hollywood films, but archaeologists have found little evidence that this was widely practiced, perhaps because ships required so much time, labor, and materials to build. However, some Viking burials contain remnants of ships, suggesting that ships also symbolized vessels for carrying the dead into the afterlife.

Searching the Amazon for THE SHORT-EARED DOG

By Renata Leite Pitman, DVM, Wildlife Veterinarian /

Research Associate and Museum Volunteer

ONE OF THE LEAST-KNOWN CARNIVORE SPECIES IN THE WORLD, THE SHORT-EARED DOG (*Atelocynus microtis*) makes its home in the lowland forests of the Amazon River basin, from eastern Peru to western Brazil.

Its scientific name means “imperfect dog with short-ears” reflecting the animal’s dog-like appearance and cat-like grace. Yet *Atelocynus microtis* is not a domesticated dog (*Canis familiaris*), but rather a distinct member of the Canidae family—which includes foxes, jackals, coyotes, wolves, and dogs.



COURTESY RENATA LEITE PITMAN

The Zoological Society of London first described the species in 1882 based on a live specimen. The Field Museum’s legendary mammalogist Philip Hershkovitz made extensive observations of two captive specimens at the Brookfield Zoo. He presented his research in a 1961 volume of *Feldiana*, The Field Museum’s scientific

journal, and included a study of skins and skulls from the American Museum of Natural History (New York) and Michigan State University.

However, no field study on the ecology of the short-eared dog was conducted until 2000, when I started the first long-term research of the species.

For the past 14 years, I have observed *Atelocynus microtis* at three sites in the Peruvian Amazon: Cocha Cashu Biological Station in Manu National Park, Alto Purús National Park, and Los Amigos Biological Station.

My studies have yielded the first data on population ecology and behavior of the species in the Amazon. Short-eared dogs live in burrows made by the giant armadillo (*Priodontes maximus*) and spend up to 50 percent of their time underground. Pumas, jaguars, and boas prey on short-eared dogs, so their populations might be greater at sites where burrows provide good hiding places. By radio-collaring short-eared dogs and giant armadillos, and monitoring over 150 burrows, I discovered that 25 other mammal species share giant armadillo burrows with short-eared dogs. **ITF**



COURTESY RENATA LEITE PITMAN

Renata and colleague prepare to return a captive short-eared dog to the wild.

volunteer spotlight

RENATA LEITE PITMAN

Renata Leite Pitman, DVM, became a Field Museum volunteer in 2013 when husband Nigel Pitman, PhD—now the Mellon Senior Conservation Ecologist—joined the Museum’s scientific staff as a visiting scholar. Her background in biology and wildlife veterinary studies provided the foundation for her first project as a Museum volunteer: a field guide to Peruvian mammals.

“Curiosity and fate” led Renata to study the short-eared dog. While working as a researcher at Duke University, a colleague told her about *Atelocynus microtis*. Renata traveled to Peru to see the species for herself, never expecting it would become the subject of a 14-year research project. The IUCN (International Union for the Conservation of Nature) recently recognized Renata’s long-term research efforts with a Natural Born Hero Award.

Cosmic Bodies Frozen in Time: FOSSIL METEORITES

By Philipp R. Heck, PhD, Robert A. Pritzker Associate Curator of Meteoritics and Polar Studies

ONLY 101 OF MORE THAN 50,000 KNOWN METEORITES ARE FOSSILIZED—AND FOUR OF THEM WILL BE EXHIBITED AT THE FIELD MUSEUM IN 2015.

Their fascinating story begins in Sweden in 1952. The manager of a limestone quarry noticed an unusually dark object in a slab that his workers had cut. He gave the slab to a paleontologist who set it on a shelf in his office and forgot about it. Twenty-seven years later, a mineralogist and meteorite enthusiast walked into that very same office, and exclaimed, "That looks like a meteorite!"



P. R. HECK

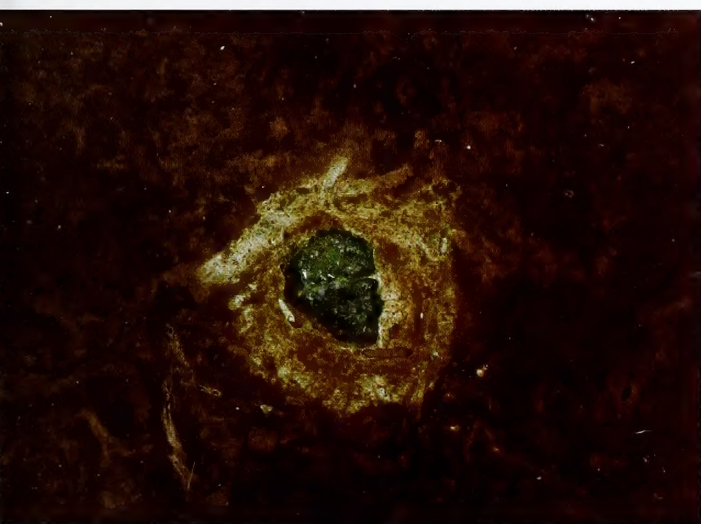
Museum Research Associate Birger Schmitz stands in front of an outcrop that contains fossil micrometeorites and meteorites and spans nearly one million years in time.

The discovery of this fossilized meteorite—nearly three decades after it was removed from the 470-million-year-old quarried limestone—led to a systematic search for more. An idealistic amateur geologist named Mario Tassinari teamed up with quarry workers and taught them to recognize fossilized meteorites. They loyally reported every find to him. Mario then made the finds available to his friend Birger Schmitz, PhD, a Swedish geology professor and research associate at The Field Museum. Over the next 20 years, 101 fossilized meteorites were uncovered in three Swedish quarries—more than 100 times what would be expected statistically.

Similar to animal and plant fossils, these meteorites became fossilized when other minerals replaced most of the original ones during the transformation of soft seabed into sedimentary rock. The meteorites, however, contain a mineral called *chromite* that was preserved in its pristine form that matches the composition of L chondrites, the most abundant type of meteorites that fall to Earth today.

The fossilized meteorites all came from the same parent planet that was shattered by a violent collision about 470 million years ago in the asteroid belt. This generated innumerable fragments, ranging from sand-grain to boulder-size, that were quickly delivered to Earth. Such fragments have been found within sedimentary rock in Russia, China, and Sweden. Scientists speculate that meteorites generated from this planetary collision can also be found on Mars and the Moon.

But you don't have to travel that far to see the fragments for yourself. Check out these rare fossilized meteorites on display in Stanley Field Hall until the end of January. Don't worry if you miss them this winter—the fossil meteorites will be back later this year in a more permanent display. **ITF**



ROBERT A. PRITZKER CENTER FOR METEORITICS AND POLAR STUDIES

This fossil meteorite (Ark 014) spent about 100,000 years in space before it arrived on Earth about 470 million years ago.

Seriously Cool: Programs for Teens

By Eduarda Briseño, Public Programs Manager and Eve Gaus, Digital Learning Manager

THIS SUMMER, THE FIELD MUSEUM WILL OFFER MULTIPLE OPPORTUNITIES FOR INQUISITIVE TEENS TO FOSTER THEIR CURIOSITY. A range of programs, tailored to specific interests, provide a great way for students to meet an engaged peer group and explore career options in museums and science. Students can go behind the scenes and meet members of the exhibitions and scientific staff. They can also investigate permanent and temporary exhibitions while interacting with the public.

SUMMER TEEN WORKSHOPS

In these intensive programs, teens explore the natural and cultural sciences with Museum staff and learn about the Museum's various scientific research projects. Students then work in small groups to create digital media projects about scientific discoveries happening at The Field. Open to students ages 12 to 18.

TEENS@THEFIELD

After receiving training from Museum staff, teens interact with and educate the public about science at The Field. Students convey scientific concepts to Museum visitors through hands-on carts—showcasing specimens and artifacts—or engage families with young children in the *Crown Family PlayLab*. Open to students ages 14 to 19 who have completed at least one year of high school, this program meets Illinois service learning requirements.



FIELD MUSEUM / ERIN MCHUGH



FIELD MUSEUM / EDUCATION



GN92004_079D / JOHN WEINSTEIN

AFTER-SCHOOL PROGRAMS

Teens explore the Museum's collections and research areas and then tinker and experiment in the Digital Studio. Students can create interactive books, 3D design projects, and computer-based games based on the scientific concepts they learned while exploring behind-the-scenes areas of The Field. Open to students 14 to 18.

YOUTH COUNCIL

For teens looking to dive more deeply into the museum world, Youth Council is the answer. Open to students who have participated in at least one other teen program at The Field, Youth Council is a yearlong commitment for teens seeking to make an impact on the Museum. Applications open in late summer, after students complete their summer programs. **ITF**

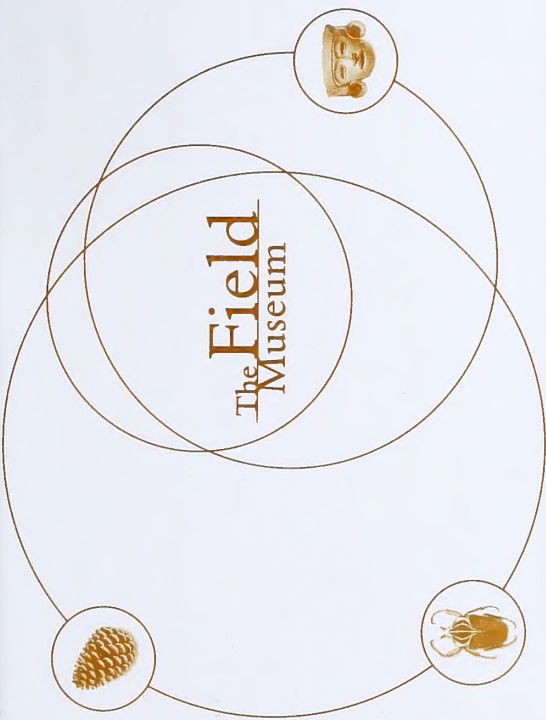
It's not too early to think about summer teen programs!

The application process opens **January 16**. For more information, visit fieldmuseum.org/at-the-field/teens.

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Deep Dive: Discovering Diversity on the Ocean Floor

By Janet R. Voight, PhD, MacArthur Associate Curator, Invertebrates, Science & Education

IF A TREE FLOATS OUT INTO THE OPEN OCEAN, FAR AWAY FROM THE COAST—THEN SINKS—WHAT HAPPENS TO IT?

Once on the dark, cold seafloor, the tree seems as out of place as a whale in a forest. My research focuses on a diverse, deep-sea ecosystem that relies on the wood of dead trees for survival. This entire aquatic community requires that wood be eaten, digested, and converted into energy that marine animals can use.

Deep-sea xylophagid bivalves (wood-boring, two-shelled mollusks) consume wood to live. These clams scrape wood with their toothed shells and then digest the shavings. Bacteria living on their gills provide the necessary chemical to transform wood into food. (Don't try this yourself; humans can't digest wood!) The marine clams perform a vital task: releasing energy that would otherwise remain locked in the sunken, dead trees on the ocean floor—an area of the planet where consumable energy for organisms is scarce.

These ecosystem-building bivalves are themselves surprisingly diverse, with as many as four species found in a single length of wood. Perhaps living head-down in a blind hole doesn't sound like much of a life, but these bivalves are incredibly important. Without them, an entire ecosystem

would not survive. Larval clams (less than 0.02 inches in diameter) continually find spots to settle and then dig holes into the wood themselves. These miniscule clams attract predators like flat worms and sea stars. Although these creatures may not seem as terrifying as a *T. rex*, they must be scary to tiny clams who can neither run nor hide!

For a decade, I've used various methods—

from deep-sea submersibles to robotic submarines—to recover wood from the seafloor along with the diverse inhabitants that form a dazzling array of invertebrate life. The specimens that I bring back from these expeditions are revealing much about this dark, underwater environment that, until recently, remained hidden and relatively unknown, even to scientists. **ITF**

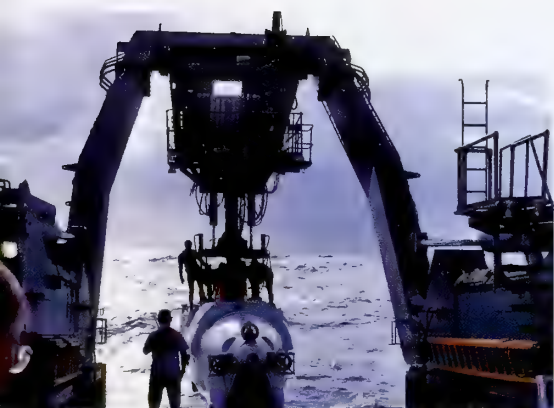


GN91500_103D / JOHN WEINSTEIN

Scientist Spotlight: Janet R. Voight

By Christine Thom, Science Writer

As a scientist who studies the biology and ecology of the deep sea, Janet R. Voight, PhD, considers 1,000 meters below sea level to be shallow water. The recipient of numerous grants, Janet's fieldwork includes 21 research cruises and eight *Alvin* (Deep Submergence Vehicle) dives. After receiving a BS in biology from Iowa State University, Janet attended the University of Arizona, Tucson, for graduate school. There, she found her calling to study life in the oceans, specifically octopuses. After receiving her doctorate in 1990, Janet joined the staff of The Field Museum and has been discovering new things about octopuses and other marine invertebrates and their deep-sea environment ever since.



JANET R. VOIGHT



FIELD ENCOUNTERS

Want to learn more about scientific research at The Field Museum?

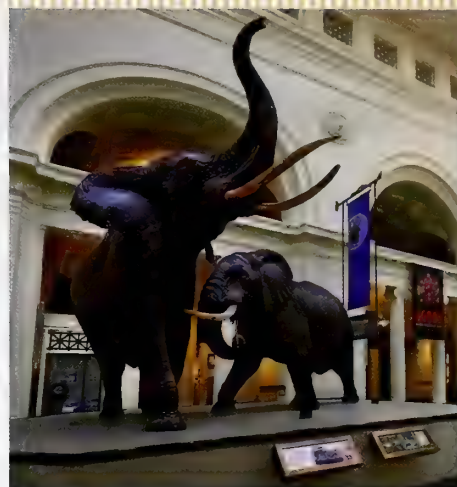
See back cover for details.



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GN92050_063BD / JOHN WEINSTEIN

EXPLORING THE FIELD MUSEUM YOUR SPRING

**SPRING BREAK IS A GREAT TIME TO VISIT THE FIELD MUSEUM.
WITH SO MANY EXCITING THINGS TO SEE AND DO, WHERE DO YOU BEGIN YOUR JOURNEY?
HERE ARE SOME RECOMMENDATIONS FROM IN THE FIELD'S EDITORIAL TEAM
TO HELP YOU ORGANIZE YOUR VISIT.**



GREG MERCER

Say hello to old friends

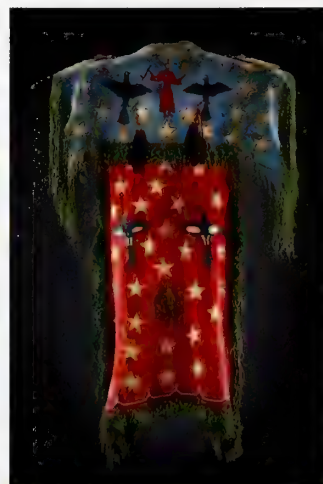
Two displays in iconic Stanley Field Hall have recently received facelifts: the **African elephants** and the **Haida totem poles**. Learn new things about these old friends through updated interpretation and engaging digital graphics.

Take the road less traveled

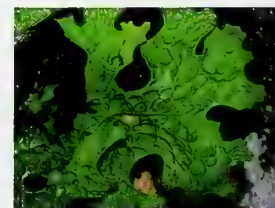
In addition to big blockbuster exhibitions, The Field Museum offers an engaging slate of smaller temporary shows this spring, including *Madagascar*, *Into the Bat Caves of Kenya*, *Bunky Echohawk: Modern Warrior*, and *Lichens*. Great things DO come in small packages!



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AT1506D_011A / JOHN WEINSTEIN



ROBERT LUCKING



See things in a new light

This spring, The Field Museum presents two big exhibitions that shatter long-held misconceptions. Both *Vikings* and *Vodou: Sacred Powers of Haiti* take a fresh look at misunderstood subjects through stunning objects, gorgeous images, and compelling narratives. © SWEDISH HISTORY MUSEUM (ABOVE)

© CANADIAN MUSEUM OF HISTORY



BREAK DESTINATION



D3D CINEMA

Prepare to be awestruck

The Field Museum's state-of-the-art 3D Theater sponsored by Ernst & Young offers four movies that bring science to life. Don't miss *Waking the T. rex 3D: The Story of SUE*, where movie-goers come face-to-face with this roaring, earthshaking, prehistoric beast!

Fuel your explorations

The **Field Bistro** and the **Explorer Café** offer great food in a sustainable way. After enjoying a healthy meal, you'll feel good knowing that both restaurants extend The Field Museum's conservation mission with a focus on energy and water conservation, waste reduction—including composting—and improved air quality. **ITF**



ARAMAK



ARAMAK

Societal Shifts: Excavating Oaxaca's Ancient Cities

By Ronald K. Faulseit, PhD, Postdoctoral Fellow and Gary M. Feinman, PhD, MacArthur Curator of Mesoamerican,

Central American, and East Asian Anthropology

ARCHAEOLOGICAL RESEARCH CAN INFORM HOW WE UNDERSTAND THE EXPANSION AND CONTRACTION OF HUMAN SOCIETIES HAPPENING TODAY. Throughout history, civilizations have experienced cycles of growth, collapse, and reorganization. Some of these cyclical patterns are well documented in historical writings, such as the rise and fall of the British Empire. But for prehistoric societies, scientists often rely on clues provided through the archaeological record to determine the origins, scale, and resilience of past human social networks. With the help of our colleague Linda Nicholas, we (Ronald "Sonny" Faulseit, PhD, and Gary Feinman, PhD) are investigating the rise and fall of communities in the Valley of Oaxaca, Mexico, both during and after the collapse of Monte Albán, the capital of the region for more than a thousand years between 500 BC and AD 850.



RONALD K. FAULSEIT

Scientist Spotlight: Sonny Faulseit

By Christine Thom, Science Writer

Ronald "Sonny" Faulseit, PhD, received an MS in chemistry from the University of Notre Dame and later returned to school to pursue his lifelong interest in archaeology. As a doctoral student at Tulane University, Sonny directed excavations in the Oaxaca Valley of Mexico and corresponded with The Field Museum's Gary Feinman, PhD, which eventually led to his current two-year postdoctoral fellowship. In his position, Sonny is organizing a colloquium series designed to stimulate integrative research dialogues between Field Museum scientists.

With support from a National Science Foundation senior research grant and a postdoctoral fellowship at The Field Museum, Sonny is directing a mapping and excavation program this spring at the site of Dainzú-Macuixóchitl to continue an investigation of the changes and continuities in ritual life, economic prosperity, and settlement patterns during and after Monte Albán's decline. In collaboration with Gary's and Linda's investigations at the site of Lambityeco, just a few kilometers away, our goal is to examine which political, social, and economic strategies and practices endured—as well as which others changed—during this dynamic era.

So far, our findings suggest that changes in external trading networks promoted competition for resources in the Oaxaca Valley. This led to a shift in power that ultimately destabilized Monte Albán's ruling elite and eroded their influence over other centers.

Our research program also harnesses The Field Museum's laboratory resources, incorporating chemical analysis of artifacts made from ceramics, including effigy vessels from the Museum's Zapotec collections (currently on display in *The Ancient Americas*). These studies probe and define networks of economic exchange in Mesoamerica at local, regional, and "global" levels. This "big picture" approach increases our understanding of the dynamic shifts that occurred in communities across the Valley of Oaxaca during this time period and informs how we understand changing societies today. **ITF**



High status individuals in Zapotec society honored their ancestors by placing elaborate ceramic urns inside their tombs. Museum researchers will conduct chemical analysis on selected Zapotec urns to help determine their original contents.

FIELD MUSEUM / ANTHROPOLOGY

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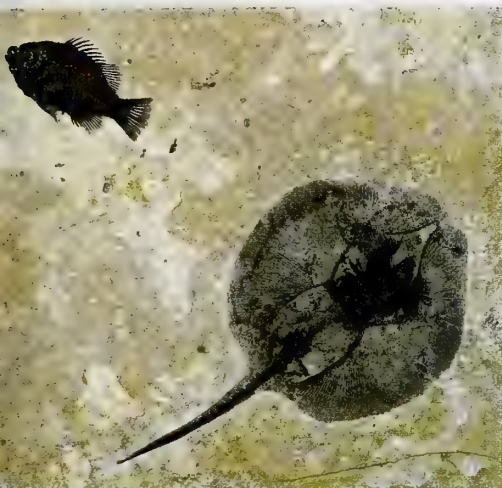
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Fishing for Fossils in Wyoming

By Emily Graslie, Chief Curiosity Correspondent

LAST SUMMER, THE BRAIN SCOOP TEAM JOINED FIELD MUSEUM PALEONTOLOGIST AND EVOLUTIONARY BIOLOGIST Lance Grande, PhD, fossil preparator Akiko Shinya, and Collections Manager Jim Holstein on a “fishing” expedition in Wyoming. The catch? A “boatload” of 52-million-year-old fossils from the early Eocene epoch, excavated from a quarry that has turned up everything from the remains of freshwater turtles and 13-foot crocodiles to pregnant stingrays.

*Pictured above:
Spiny-finned teleost
fish and stingray.*

GEOB6416_112D / DOV SCHER

*Jim Holstein (left)
and Lance Grande
(right) use saws to
cut limestone slabs
containing fossils.*

TOM MCNAMARA

Lance and various team members have returned each season to Kemmerer, Wyoming, for decades, but scientists and collectors have been finding fossils in this region for about 150 years. The location’s ideal conditions for fossilization and excavation provide a reliable source of material for the Museum and Lance’s research program. A light-colored limestone layer about 18 inches thick is bookended by thin, oil-rich “capping-layers” which have prevented groundwater from weathering away the fossil-rich limestone in between. This fossil-rich zone—called the “18-inch layer”—is about 16 to 20 inches thick, yet it represents tens of thousands of years in time. Entire life cycles of certain fishes are caught frozen in limestone, from their larval stages through adulthood.

In order to search for fossil fishes, as well as fossil plants and other animals, we carefully pried the limestone layers apart with knife-like tools, similar to turning pages in a heavy book. Each time we lifted a new slab, we held it at an angle so the sun could catch traces of relief; a shadow was cast across the surface if a fossil was hiding underneath the fine surface layer. With every “page turning” we reached a brief moment of suspense, wondering which slab would next reveal a fossil that hadn’t seen the light of day in tens of millions of years.

You can see many remarkable examples of fossils collected from the Kemmerer, Wyoming, region in the Museum’s *Evolving Planet* exhibition. For more information about the context of these fossils, read Lance’s book *The Lost World of Fossil Lake: Snapshots from Deep Time* available for sale in the Museum Stores and on Amazon. **ITF**



Emily Graslie, YouTube personality and the Museum’s first-ever Chief Curiosity Correspondent, hosts the popular web series *The Brain Scoop*. To see videos of Emily’s fossil-hunting expedition in Wyoming, check out youtube.com/thebrainscoop and facebook.com/TheBrainScoop.

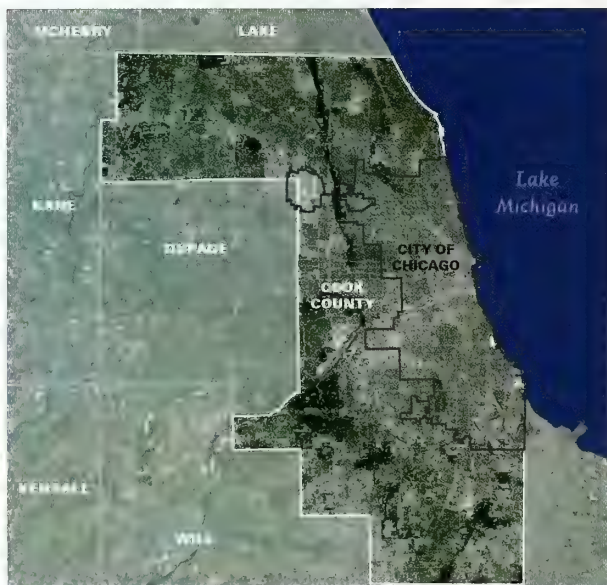
GREENING CHICAGO

ONE TREE AT A TIME



THE CHICAGO REGION IS HOME TO MORE THAN 157 MILLION TREES. COLLECTIVELY, THESE TREES REMOVE NEARLY 25,000 TONS OF POLLUTANTS FROM OUR AIR EVERY YEAR. For this reason—and many others—The Field Museum has helped launch the Chicago Regional Trees Initiative (CRTI).

By Catie Boehmer,
Individual Giving
Specialist



MARK JOHNSTON

Field Museum scientists use satellite imagery, among other tools, to create maps of the region's urban tree canopy. Dark green areas above show the densest tree concentrations.



CHICAGO
REGIONAL
TREES
INITIATIVE

Led by the Morton Arboretum, the CRTI is a major campaign to study and understand Chicagoland's tree population and identify opportunities for its collaborative management. The long-term goal is to create healthier woodland environments distributed across seven counties (Cook, DuPage, Kane, Kendall, Lake, McHenry, and Will).

Today, invasive plant species (such as buckthorn and honeysuckle) threaten Chicagoland's urban forests, while trees that once dominated the landscape prior to human settlement—namely oak and hickory—have become less abundant. These conditions make urban woodlands vulnerable; forests dominated by a single tree species face increased risk with the onset of climate change and the destructive forces of parasites, such as the emerald ash borer beetle. As a result, many local communities face the possibility of nearly treeless streets and degraded forests.

Enter The Field Museum's Science Action team and Mark Johnston, geographic information manager. Using a combination of satellite imagery, on-the-ground surveys, and 3D elevation data, Mark's team creates interactive online maps which paint a more accurate picture of the region's urban tree canopy—and help identify potential problems.

"We're looking at seven counties, hundreds of plots to survey and map—both on the ground and aurally—its a huge quantity of information to analyze and consolidate," explains Mark. The CRTI will use this information to increase and diversify tree populations, combat invasive species, and strengthen and update reporting and mapping tools.

"The Field Museum is critical to the foundation of CRTI," says Lydia Scott, community trees program manager at the Morton Arboretum. "We need to understand our forest composition to make informed decisions about their care, diversity, and where efforts should be expended. The Field is helping us map and understand this information, so that it will be available in a format easily accessible to decision makers." **ITF**

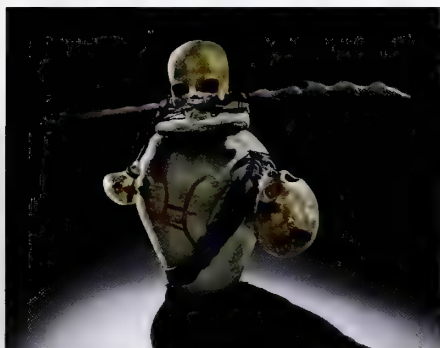
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Countering Stereotypes

By Franck Mercurio, Editor

IN AMERICAN POPULAR CULTURE, THE WORD “VOODOO” BRINGS TO MIND BLACK MAGIC, ZOMBIES, AND DOLLS STUCK WITH PINS. Hollywood has reinforced these sinister images, fueling misconceptions of Vodou [voh-DOO], a living religion practiced by millions of people in Haiti. The exhibition *Vodou: Sacred Powers of Haiti* seeks to counter the negative stereotypes and illuminate the real spiritual beliefs of Haitian Vodouists through artifacts, photographs, and

stories told by the practitioners themselves. The following are some “must see” objects from this visually stunning exhibition that bring to light the practices and intentions of Vodou followers.



FRANK WIMART

PWEN IBO

Vodou keeps alive some of the spiritual practices of West African peoples who were enslaved and brought to Haiti generations ago. This urn honors Ibo ancestors from Nigeria and is believed to possess the power of the ancestral spirits. The Vodou practitioner who created this vessel incorporated real human skulls. Vodouists do not consider the use of human bones as macabre or morbid, but instead find comfort and joy in incorporating them into revered objects. Like many other cultures around the world, Vodouists feel close to great leaders and their ancestors when in the presence of their physical remains.



BIZANGO FIGHTING SPIRIT

In Western culture, the devil is often portrayed as a red male figure with horns. But this fighting spirit from the Bizango secret society is no devil; rather, he is a fierce warrior and protector of Vodou practitioners. As such, the fighting spirit embodies the Haitian peoples' historic resistance to oppression and ultimate triumph over slavery in 1804. The spirit's power is derived from his (real) bull horns placed atop his head—symbols of vitality, potency, and strength.



MARIE-LOUISE DERUAZ

ERZULIE FREDA

In Haitian Vodou, dolls are not stuck with pins; in fact, causing harm to other people is against Vodou ethics. Sometimes, practitioners create representations of spirits using dolls, as with this figure of Erzulie Freda, a female spirit who personifies love, beauty, and sensuality. Her flirtatious personality has a taste for luxury and worldly pleasures, including beautiful dresses, jewelry, perfumes, grooming accessories, and fine foods. Practitioners often give offerings of pink champagne to Erzulie Freda.

See these and other remarkable objects in *Vodou: Sacred Powers of Haiti*, now open through Sunday, April 26. **ITF**

Vodou: Sacred Powers of Haiti was co-organized by the Canadian Museum of History and the Foundation for the Preservation, Promotion and Production of Haitian Cultural Works in partnership with the Ethnography Museum of Geneva in Switzerland and the Tropenmuseum of the Netherlands.

IMAGES © CANADIAN MUSEUM OF HISTORY



FIELD ENCOUNTERS

Want to learn more about exhibitions at The Field Museum?
See back cover for details.

Into the Bat Caves of Kenya

By Taylor Peterson, Media and Interactives Coordinator, Exhibitions



FIELD MUSEUM / EMILY WARD

Now on view, *Into the Bat Caves of Kenya* reflects the “batty” research of Field Museum scientist Bruce Patterson, PhD, and his colleague Paul Webala, PhD, from Kenya’s Moi University. The exhibition presents a behind-the-scenes look at the challenges and excitement of documenting a scientific expedition and offers an opportunity to peer into the remarkable faces of East Africa’s astonishingly diverse bat species. Field Museum filmmakers, who recently traveled to Kenya with *The Brain Scoop*’s Emily Graslie, present the expedition through two large scale media projections: one a video program featuring trip highlights and the other a slideshow of the researcher’s stunning photography. Not to be missed!

The expedition featured in this exhibition was supported by the JRS Biodiversity Fund and Bud and Onnolee Trapp.

Coming soon!

Cyrus Tang Hall of China

The Field Museum invites members to experience the *Cyrus Tang Hall of China*, a new permanent exhibition opening June 24.

The Museum’s diverse collections and anthropological expertise offer a richer understanding of the deep history and cultural traditions that underscore modern China. Get a rare chance to scroll through a



AT15030D 002 / JOHN WEINSTEIN

27-foot-long painting of the Qingming festival (pictured, right); go backstage to discover how performers put on a unique show at a Chinese shadow puppet theater; examine artifacts recovered from the 13th-century Java Sea Shipwreck; and learn how China became a leader in global trade by moving goods, ideas, and innovations across boundaries, building powerful networks that changed the world.

For information about exclusive members-only events, check the Museum’s website this spring at fieldmuseum.org/membership or call 312.665.7700.



AT15030D 002 / JOHN WEINSTEIN

Copied and reinterpreted over the centuries, Journey up the River in Springtime depicts an idealized vision of life in southern China, circa AD 1100. The Field Museum presents a 17th-century version of this famous painting in the Cyrus Tang Hall of China.

FIELD MUSEUM
MEMBERSHIPS

Time to renew your membership?

Call 312.665.7700 • Mon.–Fri., 8:30am–4:30pm

Visit fieldmuseum.org/membership

Set Sail for the Vikings Store!

From model boats and reproduction helmets to books, toys, jewelry, food, and more, enjoy a shopping experience as memorable and exciting as the Vikings themselves!



Field Museum members receive a 10 percent discount on all Store purchases, and each purchase supports the Museum's public and scientific programs. As always, you can shop 24 hours a day at store.fieldmuseum.org.



SAVE THE DATE MAY 14+15 MEMBERS' NIGHTS

As a member, you are invited to the most exclusive, engaging event at The Field Museum: Members' Nights! Explore our vast collections, interact with curators and staff, and see first-hand the behind-the-scenes work that defines The Field Museum as one of the world's great scientific and cultural institutions. This year, Members' Nights will take place **Thursday, May 14** and **Friday, May 15** from 5–10pm. Reservations are required and space is limited. Please RSVP with Member Services at 312.665.7705 or visit fieldmuseum.org/membership.

Members' Nights Sponsor:



GN91954, 1920 / KAREN BEAN

museum campus neighbors

ADLER PLANETARIUM

The Adler Planetarium fuels the imagination with exhibitions, leading-edge technology, and hands-on activities for the whole family. In **Destination Solar System**, the Adler's newest space adventure, the excitement and drama of our celestial neighborhood comes to life in stunning, vivid detail. The Grainger Sky Theater propels audiences on a tour of the Solar System in this unforgettable experience, only at the Adler. For more details, visit www.adlerplanetarium.org.

SHEDD AQUARIUM

When arctic winds blow, escape to tropical climes at Shedd Aquarium. Stash your coat and mittens, and explore the coral reefs of the Caribbean and the Philippines, the rivers of Asia, the lakes of Africa, and the floodplain of the mighty Amazon River—all in one day. You can dive deeper during a Shedd family overnight in January, February, or March. You'll learn more about the animals, enjoy activities, dinner, and an aquatic show—and then sleep next to the fishes! For more details, visit www.sheddaquarium.org.



The Field Museum salutes the people of Chicago for their long-standing support of the Museum through the Chicago Park District.



ILLINOIS
ARTS
COUNCIL
AGENCY

Programming is partially supported by a grant from the Illinois Arts Council Agency.

Official Airline of The Field Museum



events

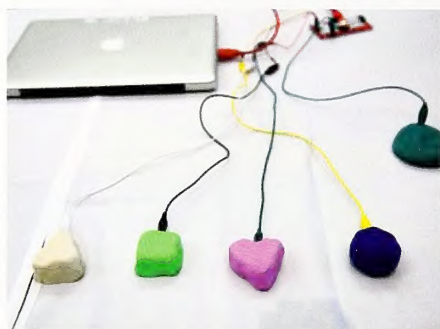


ART AND SCIENCE SPOTLIGHT @ Crown Family PlayLab

Listen to storytellers, sing with musicians, and create with artists in the *Crown Family PlayLab*. Programs include: Chicago International Puppet Theater Festival (1.17); Connections to Collections: Objects Tell Stories (2.21); Viking Games (3.21); and, Plants of the World (4.18). For children ages 6 and under. FREE

January 17 / February 21 / March 21 / April 18 / 11am–2pm

ADULTS / EDUCATORS / FAMILIES / TEENS

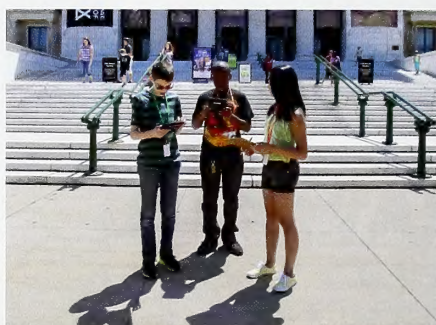


CULTURAL MATERIAL: 3D

Objects tell stories. Learn how Museum researchers use 3D technologies to preserve objects and the stories they tell. Experience working in 3D software and design your own 3D object to be printed at the end of the program. FREE and open to teens ages 14–18 with a valid school or state ID.

February 25–April 1 / 4:30–6:30pm

ADULTS / EDUCATORS / FAMILIES / TEENS

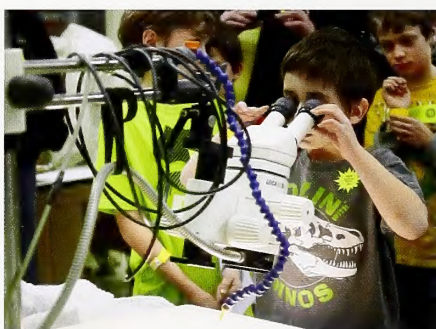


BIODIVERSITY ARCADE Like playing video games?

Join us this winter as we design video games about life on Earth! We'll explore The Field Museum's collections and research on the evolutionary tree of life. Teens will learn to code in Scratch and program what they learn about Field Museum science into a biodiversity video game. FREE and open to teens ages 14–18 with a valid school or state ID.

January 14–February 18 / 4:30–6:30pm

ADULTS / EDUCATORS / FAMILIES / TEENS



DOZIN' WITH THE DINOS Spend the night at The Field Museum!

Overnights are held on select Fridays from 5:45pm to 9am the following morning for families with children ages 6–12 years old. Tickets for the 2015 season are on sale now.

Standard Overnight: \$63, \$55 members/groups
Premium Package 1: \$76, \$66 members
Premium Package 2 with Tour: \$88, \$78 members

January 16, 23 / February 6, 13 / March 6, 20, 27 / April 10, 18* / May 8

ADULTS / EDUCATORS / FAMILIES / TEENS

*Saturday from 5:45pm to 9am Sunday morning



DINO CAMP 2015 I spy a dinosaur! Do you?

Dino Camp is an early childhood camp designed expressly for young explorers ages 3–4 with their caregivers. Tickets are on sale now. \$76, \$67 members

1 Tuesdays / June 2 + 9 / 9–11:30am
2 Wednesdays / June 3 + 10 / 9–11:30am
3 Tuesdays / June 16 + 23 / 9–11:30am
4 Wednesdays / June 17 + 24 / 9–11:30am

ADULTS / EDUCATORS / FAMILIES / TEENS



SUMMER WORLD'S TOUR

Summer World's Tour offers a week of adventures in Chicago's premier museums for children entering kindergarten through fifth grade in the fall of 2015. Please visit www.adlerplanetarium.org/camps to register starting February 3 at 10am. \$305, \$275 members

1 Mon–Fri / July 6–10 / 9am–3pm
2 Mon–Fri / July 13–17 / 9am–3pm
3 Mon–Fri / July 20–24 / 9am–3pm
4 Mon–Fri / July 27–31 / 9am–3pm

ADULTS / EDUCATORS / FAMILIES / TEENS

PROGRAM TICKETS + INFO

312.665.7400

MEMBERSHIP

312.665.7700

For event details, program registration, and to explore the Museum's full events calendar, please visit fieldmuseum.org/at-the-field.



SUMMER TEEN VOLUNTEERS

Summer teen volunteers commit to one day per week between June 15 and August 17 and interact with the public in the Museum's exhibition halls and the *Crown Family PlayLab*. Interested candidates must complete an online application form. Application deadline is Friday, March 13. For more information, email teens@fieldmuseum.org.

June 15–August 17

ADULTS / EDUCATORS / FAMILIES / TEENS



HOP TO IT AT THE FIELD

Taste The Field Bistro's latest craft beer, learn more about brewing and its history from Museum scientists and local brewers, and see beer-related artifacts from the behind-the-scenes collections. Tickets include two pints of The Field's new beer, food pairings from The Field Bistro, and a *Hop To It* pint glass for guests to take home with them.

\$35, \$30 *members*

For dates and details, visit Museum website.

ADULTS / EDUCATORS / FAMILIES / TEENS



**CONNECTIONS TO COLLECTIONS:
Objects tell stories. What's your story?**

The unique objects in the Museum's collection tell the stories of the world, but they also have the power to tell our own personal stories. Take a sneak peek at the upcoming permanent exhibition, *Cyrus Tang Hall of China*, to examine some of its featured objects up close and share what they mean to you. FREE

Saturday / February 21 / 10am–2pm

ADULTS / EDUCATORS / FAMILIES / TEENS



MINECRAFT @ THE MUSEUM

What exhibition would you like to add to The Field Museum? Explore the world of Minecraft and create an exhibition you think is missing from the Museum. FREE and open to teens ages 14–18 with a valid school or state ID.

March 19–May 20 / 4:30–6:30pm

ADULTS / EDUCATORS / FAMILIES / TEENS



THE HOT MIX DANCE PARTY

Join SUE the *T. rex* for a night of old school house parties! Presented by The Field Museum and V103, the evening features an all-star lineup, including Scott Smokin' Silz (Original Hot Mix 5), Andre Hatchett (Chosen Few), Terry Hunter (Chosen Few), Maurice Ice Culpepper (V103), and Steve "Miggidy" Maestro. VIP Packages and food and beverages available.

For dates and details, visit Museum website.

ADULTS / EDUCATORS / FAMILIES / TEENS



**CHICAGO INTERNATIONAL
PUPPET THEATER FESTIVAL**

Take a magical journey through the Museum as Jabberwocky Marionettes hosts "Open Mic Puppets" featuring local puppeteers performing family-focused puppet shows. See *Rich in Tradition* Chinese Shadow Puppets by renowned New York-based Chinese Theater Works. FREE

Supported by The Chicago Community Trust.

Saturday / January 17 / 11am–3pm

ADULTS / EDUCATORS / FAMILIES / TEENS



FIELD ENCOUNTERS

All Annual Fund supporters can now opt into the brand new Field Encounters program!

Tailored to your interests, Encounters offers unique opportunities to learn more about your favorite Field Museum topics—while supporting scientific research and public outreach. Choose from three different Encounters subject areas:

- **Anthropology**
- **Creatures + the Environment**
- **Exhibitions + Public Learning**

Depending on your level of support, you may choose up to three Field Encounters:

- Field Adventurers (\$250–\$499) = one encounter
- Field Naturalists (\$500–\$999) = up to two encounters
- Field Explorers (\$1,000–\$2,499) = up to three encounters

To learn more about Field Encounters or to make your gift to the Annual Fund, call 312.665.7777 or visit fieldmuseum.org/encounters.



5.2
SAVE THE DATE

From Villages to Cities: An Archaeological Encounter

On May 2, join us for an archaeological adventure! In conjunction with Crow Canyon Archaeological Center, a research center and “living classroom” located in southwestern Colorado, The Field Museum presents *From Villages to Cities: An Archaeological Encounter*. In this day-long symposium, Field scientists and Crow Canyon researchers will present seminars on anthropological and archaeological topics ranging from pueblo community dynamics to the evolution of trade.

Annual Fund donors who opt in for the Anthropology Encounters (see above) are invited to register for this symposium free of charge. Field Museum donors and members may register at a discounted fee for the day-long session. For more information, contact Erica Osterloo at 312.665.7593 or eosterloo@fieldmuseum.org. **ITF**



PHOTO COURTESY WWW.CROWCANYON.ORG

Connect with The Field Museum online!

